CLAIMS

1. A process for the surface-immobilization of antimicrobial polymers, comprising:

forming a process bath comprising at least one antimicrobial polymer; and

surface-immobilize the antimicrobial polymers to a surface of a workpiece by coating the workpiece by metal deposition.

2. The process according to claim 1, wherein said metal deposition is electrochemical metal deposition.

3. The process according to claim 1, wherein said coating comprises immersing said workpiece in said process bath for a time and under conditions suitable for forming a metal layer of a desired of a desired thickness.

4. The process according to claim 1, wherein said workpiece is a tube or a cathode.

5. The process according to claim 1, wherein the metals deposited during said metal deposition is selected from the group consisting of nickel, copper, silver, gold, and platinum.

6. The process according to claim 1, wherein said metal deposition is conducted without an external current.

7. The process according to claim 1, wherein said metal deposition is conducted using an external current.

8. The process according to claim 1, wherein the antimicrobial polymer is prepared from nitrogen-functionalized polymers or phosphorus-functionalized polymers.

9. The process according to claim 1, wherein the antimicrobial polymer is a copolymer comprising at least one monomer selected from the group consisting of 2-tert-butylaminoethyl methacrylate, 2-diethylaminoethyl methacrylate, 2-diethylaminomethyl methacrylate, 2-tert-butylaminoethyl acrylate, 3-dimethylaminopropyl acrylate, 2-diethylaminoethyl acrylate, 2-dimethylaminoethyl acrylate, dimethylamino-propylmethacrylamide, diethylaminopropylmethacrylamide, N-3-dimethylaminopropylacrylamide, 2-methacryloyloxyethyltrimethylammonium methosulfate,

2-methacryloyloxyethyltrimethylammonium chloride, 3-methacryloylaminopropyltrimethyl-ammonium chloride, 2-acryloyloxyethyl-4-benzoylbenzyldimethylammonium bromide, 2-methacryloyloxyethyl-4-benzoylbenzyldimethylammonium bromide, allyltriphenylphosphonium bromide, allyltriphenylphosphonium chloride, 2-acrylamido-2-methyl-1-propanesulfonic acid, 2-diethylaminoethyl vinyl ether, 3-aminopropyl vinyl ether, 3-aminopropyl methacrylate, 2-aminoethyl methacrylate, 4-aminobutyl methacrylate, 5-aminopentyl methacrylate, 3-aminopropyl acrylate, 2-aminopropyl acrylate, 4-aminobutyl acrylate, 5-aminopentyl acrylate, 2-aminoethyl vinyl ether, 4-aminobutyl vinyl ether, and 5-aminopentyl vinyl ether.

10. The process according to claim 9, wherein the antimicrobial polymer further comprises an aliphatically unsaturated monomer.

11. The process according to claim 1, wherein the antimicrobial polymer is suspended in an aqueous dispersions.

12. The process according to claim 11, wherein the process bath comprises from 0.01 to 30% by volume of the aqueous dispersion of the antimicrobial polymer.

13. The process according to claim 1, wherein the aqueous dispersion further comprises an acid.

14. A metal coating which comprises one or more antimicrobial polymers, wherein the surface of the metal coating comprises from 0.1 to 20% by surface area of said antimicrobial polymers.

15. The metal coating according to claim 14, wherein the antimicrobial polymers are prepared from nitrogen-functionalized monomers or phosphorus-functionalized monomers.

16. The metal coating according to claim 14, wherein the antimicrobial polymer is a copolymer comprising at least one monomer selected from the group consisting of2-tert-butylaminoethyl methacrylate, 2-diethylaminoethyl methacrylate, 2-diethylaminomethyl methacrylate, 2-tert-butylaminoethyl acrylate, 3-dimethylaminopropyl acrylate, 2-diethylaminoethyl acrylate, 2-dimethylaminoethyl acrylate, dimethylamino-

propylmethacrylamide, diethylaminopropylmethacrylamide, N-3-dimethylaminopropylacrylamide, 2-methacryloyloxyethyltrimethylammonium methosulfate, 2-methacryloyloxyethyltrimethylammonium chloride, 3-methacryloylaminopropyltrimethyl-ammonium chloride, 2-acryloyloxyethyl-4-benzoylbenzyldimethylammonium bromide, 2-methacryloyloxyethyl-4-benzoylbenzyldimethylammonium bromide, allyltriphenylphosphonium bromide, allyltriphenylphosphonium chloride, 2-acrylamido-2-methyl-1-propanesulfonic acid, 2-diethylaminoethyl vinyl ether, 3-aminopropyl vinyl ether, 3-aminopropyl methacrylate, 2-aminoethyl methacrylate, 4-aminobutyl methacrylate, 5-aminopentyl methacrylate, 3-aminopropyl acrylate, 2-aminopropyl acrylate, 4-aminobutyl acrylate, 5-aminopentyl acrylate, 2-aminoethyl vinyl ether, 4-aminobutyl vinyl ether, and 5-aminopentyl vinyl ether.

17. The metal coating according to claim 14, wherein the antimicrobial polymer further comprises an aliphatically unsaturated monomer.

18. A metal coating, produced by a process as according to claim 1.

19. A building, comprising a coated workpiece produced by a process according to claim 1.

20. A monument, comprising a coated workpiece produced by a process according to claim 1.

21. A galvanic cell, comprising a coated workpiece produced by a process according to claim 1.

22. A process for preparing a building, a monument, or a galvanic cell comprising:

forming a process bath comprising at least one antimicrobial polymer;

surface-immobilize the antimicrobial polymers to a surface of a workpiece by coating the workpiece by metal deposition; and then

constructing a building, a monument, or a galvanic cell with a workpiece coated with a surface-immobilized antimicrobial polymer.